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ABSTRACT

An innovative teaching method used in a theories of personality class at Eastern New Mexico University is described. The objectives of this method were to foster growth in creativity among students by involving them in creative activities or experiential sessions and to test for improvement in student creativity scores. The following procedure was followed: a pretest using Form A, Verbal, Torrance Test of Creative Thinking (TTCT); application of the Creative Thinking and Problem-Solving Method; and a post-test using Form B, TTCT. The Creative Thinking and Problem-Solving Method consists of the following techniques: activities, creative diagrams, presentation of theories, films and one-page reactions, outlines and alternative constructs, presentations of creative productions, and developing and presenting the students' own theories of personality. Each of the nine activities consisted of descriptions or definitions of the concept used (e.g., brainstorming), instructions for performing the activity, and discussion of issues related to the concept. Students were asked to diagram their perceptions of the personality theory under study. A team of two or three students presented a theory from the textbook in as creative a manner as possible, and each gave a description of a creative product produced outside of the class. On the TTCT, it was found that a change in originality occurred for the students, but flexibility and fluency measures did not change. It is concluded that not enough exercises in rapidly producing solutions and finding divergent solution ideas for a problem were included in the creative activities. However, it is suggested that the objectives of fostering and experiencing creativity were met. (SW)

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# A CREATIVE APPROACH TO TEACHING

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# A CREATIVE APPROACH TO TEACHING

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Much time in college classrooms is spent teaching facts which are soon forgotten after the final examination. Some facts become obsolete as newer measurements and techniques of inquiry are discovered. Much time and mental emergy are therefore wasted in memorizing bits of factual information. What remains more or less permanently in the learner is his or her ability to think, solve problems, or create new ideas. This ability becomes critical in a society which is problem-ridden and highly complex.

In recognition of the importance of creativity, I decided to use the creative approach to teaching the theories of personality class during the 1982 spring semester. This class lends itself more than the other psychology classes that I teach to the creative production of ideas and the application of problem-solving techniques to life situations.

The objectives of this innovative method (The Creative Thinking and Problem-Solving Method) were to foster growth in creativity among students by involving them in creative activities or experiential sessions, and to test for improvement in the creativity scores of the students. The design to meet these objectives consisted of (1) a pre-test using Form A, Verbal, Torrance Test of Creative Thinking (TTCT); (2) application of the Creative Thinking and Problem-Solving Method); and (3) a post-test using Form B, TTCT.

Creativity is defined as a process and a capability. As a process, it is the production of something that is not made by ordinary means. As a capability, it consists of three general elements: fluency, flexibility, and originality. In fluency, many responses for a particular situation are given. The emphasis is on quantity rather than quality. For example, the student

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might be asked to list all the ways he or she can think of to improve communication. Flexibility is shifting thinking from one way into different avenues of thinking. For example, the student might be asked to give some reasons different from those that are ordinarily given for improving communication. Originality is overcoming habit to produce new combinations and to come up with new solutions to problems. Creativity is a generic term applied to divergent ways of thinking and problem-solving.

The predicted outcome of this method was that participation in creative thinking and problem-solving activities would improve the over-all scores of the students on a creativity test. The null hypothesis was that there would be no difference between pre-test and post-test scores on fluency, flexibility, originality, and the total scores on creativity.

A schedule of class activities was distributed at the beginning of class. It was announced that the creative method of instruction as opposed to the traditional lecture-discussion-test method was going to be tried in that class. Quizzes and tests were to be eliminated to prevent test anxieties which could diminish creativity. The grading system was to be based on total points obtained in all of the class activities and in attendance. An option of taking an objective comprehensive test on the textbook was made available to those students who, after participating in 60% of the class activities, prefer to take a test to continuing with the class. The textbook used was Theories of personality by Hall & Lindzey (1978).

Thirty-two students enrolled in the class, twenty-seven of whom were undergraduates and five were graduates. Four undergraduate students dropped the class; two opted for the test. There were no withdrawals nor options taken among the graduate students.

The Creative Thinking and Problem-Solving Method consisted of the follow-

ing techniques: (1) Activities, (2) Creative Diagrams, (3) Presentation of Theories, (4) Films and One-Page Reactions, (5) Outlines and Alternative Constructs, (6) Presentations of Creative Productions, and (7) Developing and Presenting Own Theory of Personality. These techniques are described as follows:

(1) Activities - Nine activities were distributed and interspersed with other experiential exercises throughout the semester. Each activity consisted of descriptions or definitions of the concept used, instructions for performing the activity, and discussion of points or other issues related to the concept. An example of an Activity is Brainstorming. This concept was defined as a technique to generate ideas and to overcome obstacles to creativity by emphasizing that judgment and criticism should be delayed (Osborne, 1963). The students were instructed to divide themselves into groups of four and agree on a problem. They then "brainstormed" the solution to the problem by giving both traditional and creative or wild ideas. Discussion followed this brainstorming session, and a summary statement of how the problem may be solved effectively and realistically was offered.

(2) Creative Diagrams - Each student was asked to diagram his or her perception of the personality theory under study. The purpose of this exercise was to foster the student's imagination in creatively producing a visual interpretation of the basic theoretical concepts of the personality theorist being studied, and in presenting a bird's-eye view of the theory. For example, a student portrayed Freud's concept of the mind as a tree as an alternative to an iceberg. Another student gave a musical interpretation of the id, ego, and superego.

(3) Presentation of a Theory - Two or three students, as a team, presented a theory from the textbook in as creative a manner as possible. The only pros-

cription was to avoid the traditional way of merely reading notes or reading from the textbook. The following is a descriptive account of a presentation of a theory (Eastern Psychology):

> The two characters in the skit were Buddha and a Western psychologist named Dr. Alwaysright. Buddha was garbed in a white robe. Dr. Alwaysright was in a pinstripped suit with tie carrying a briefcase. Buddha, of course, was the symbol of Eastern thought. Dr. Alwaysright was the harried, hurried Western symbol. Given a limited amount of time and volumes of literature about Eastern psychology, only the high points common to almost all the sects of Buddhism were brought out through the dialogue between East and West. Also, portrayed were the differences in personality between the two characters. Dr. Alwaysright was always looking at the clock and worried about time schedules,reaching goals and developing a strong ego. The character of Buddha responded in a calm, peaceful manner from the East the the philosophy of goalessness, egolessness, and all the healthy states of being. In response to Dr. Alwaysright's question of how to obtain the healthy states, Buddha led everyone in the class through the concentration form of meditation as the means of gaining altered states of consciousness, the key concept of Buddhism.

(4) Films and One-Page Reactions. Films on some theories were shown and discussed. Each student wrote reactions to these films. These one-page papers focused on divergent ways of studying the human personality. The following films were shown: Freud: The Hidden Nature of Man, Eriksonson's Everybody Rides the Carousel, and Rogers' Journey Into the Self.

(5) Outlines and Alternative Constructs - Each student made a brief outline of each of the theories in the textbook. The outline focused on major assumptions and constructs of each theorist. The student also offered alternative constructs or explanations to the ones constructed by the theorists.

(6) Presentation of Creative Productions - Each student gave a description of a creative product that he or she produced outside of class. There were no constraints placed on this activity, except for relating the product to the human personality. For example, a student brought to class a baked landscape made from sourdough. She described the "psychodynamics" of parts of the tree, plants, flowers, house, and of the entire landscape. After her presentation, we ate her sourdough landscape. Another student

wrote flute music and played it in class. He described his moods and motivations while creating the melody, and the class described their feelings as they listened to it.

(7) Developing and Presenting Own Theory of Personality - This assignment was given only to the graduate students for graduate credit in the course.

The Torrance Test of Creative Thinking (Verbal, Forms A and B) was used as the pre-post test instrument. This test was developed by E. Paul Torrance (1972) at the University of Minnesota. The tasks chosen for the test were of those types that could be easily administered and scored, and that had stood best the tests of reliability and validity. The tasks were asking questions about a drawing, making guesses about the causes of the event pictured, producing ideas for improving a toy, thinking of unusual uses of tin cans or cardboard boxes, asking provocative questions, and thinking of the varied possible solutions to an improbable event.

The statistic used - the range of predicted difference for means - included the "F-test" and the "t" value for 95% degree of certainty. If the range of predicted values of the difference between means included the value zero the null hypothesis was accepted. Conversely, if the range of predicted values of the difference between means did not include the value zero the null hypothesis was rejected.

The formula is:

Range of predicted difference between means

$$= (\bar{X}_H - \bar{X}_L) \pm \left[\left( \frac{(n_H - 1)S_{XH}^2 + (n - 1)S_{XL}^2}{(n_H + n_L - 2)} \right)\left( \frac{1}{n_H} + \frac{1}{n_L} \right)\right]^{\frac{1}{2}t}$$

RESULTS

Null Hypothesis I- There would be no difference between the total pre-post test

scores on creative thinking. The range of difference between means was from 17.46 to 33.39. Since the value zero was outside this range, the null hypothesis was rejected. Change in over-all creativity had taken place.

Null Hypothesis II - There would be no difference between pre-post test scores on fluency. The range of difference between means was from -8.27 to 8.27. Since the value zero was included in this range, the null hypothesis was accepted. Change in fluency had not taken place.

Null Hypothesis III - There would be no difference between pre-post test scores on flexibility. The range of difference between means was from -28.82 to 29.77. The null hypothesis was accepted. Change in flexibility had not taken place.

Null Hypothesis IV - There would be no difference between pre-post test scores on originality. The range of difference between means was from 11.4 to 43.5. The null hypothesis was rejected. Change in originality had taken place.

The predicted outcome which was that participation in creative thinking and problem-solving activities would improve the over-all scores of students on a creative thinking test was confirmed at the 95% degree of certainty.

A summary of the scores obtained in the fluency, flexibility, originality, and total creativity tests is seen in Table 1.

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Insert Table 1 Here

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At the end of the semester the students were asked to judge the value of the new approach to learning about the human personality. Ninety percent of the undergraduates and 100% of the graduates indicated that the creative experience was beneficial in terms of the development of creativity and new

dimensions of looking at the personality. The positive comments focused on three aspects of the creative experience: (1) social - many of them made friends and got to know one another through the shared activities; (2) potentialities - insight intheir creative potentials through thinking and problem-solving was achieved by the majority of the students; and (3) catharsis - some deep feelings surfaced and were dealt with satisfactorily as the students worked on their projects and presentations. The negative comments were (1) too much work was involved; (2) giving bizarre ideas or solutions was a waste of time; and (3) the grading system was subjective.

## DISCUSSION

The confirmation of the predicted outcome, the rejection of the null hypothesis in originality, and the benefits that accrued to majority of the students can be given as a good raison d'etre for using the creative approach to the teaching of the theories of personality class.

As to the acceptance of the null hypotheses for fluency and flexibility, it can be postulated that not enough exercises in rapidly producing solutions and finding divergent solution ideas for a problem were included in the creative activities. The method included more techniques toward improving originality than toward increasing either fluency or flexibility. Another factor may be the time limitation imposed by the Torrance Test. It gave the students only five minutes to complete a fluency or flexibility task whereas a class activity on either element was done by the students for 50 minutes.

When a new approach is introduced as a teaching method, complaints from some students arise in the beginning. This is probably due to a tendency to reject change and to follow the path of least resistance. Comments such as "I don't like to think, just give the information to me straight," or "It's

such a waste of time - thinking about wild, bizarre, or weird solutions," seemed to indicate the inertia that the students were undergoing. But as the class progressed, more acceptance of the new method and a higher level of motivation to be creative were observed in many students. They spent several hours outside of class preparing for their creative presentations.

Since many of the activities involved sharing of experiences and ideas, names of students were learned and friendships were formed. The method also gave the students an opportunity to overcome old habits of thinking and problem-solving and experience new ways of looking at themselves and at the world. The positive comments far outweigh the negative ones.

It is concluded that the objectives of this innovative method - fostering, experiencing, and developing creativity - were met in this particular psychology class.

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Table 1
Summary of Fluency, Flexibility, Originality, and
Total Creativity Scores

| | Form A | | | Form B | | |
|---|---|---|---|---|---|---|
| | M | S.D. | $x^2$ | M | S.D. | $x^2$ |
| Fluency | 79.05 | 25.09 | 629.25 | 74.19 | 25.21 | 635.36 |
| Flexibility | 38.43 | 10.52 | 110.56 | 38.91 | 10.50 | 110.29 |
| Originality | 46.43 | 21.97 | 482.86 | 73.86 | 28.89 | 843.33 |
| Total Creativity Scores (Flu. + Flex. + Orig.) | 163.91 | 51.09 | 2609.69 | 189.33 | 62.57 | 3914.43 |

References

Hall, C. S. & Lindzey, G. Theories of personality (2nd ed.). New York: Wiley & Sons, 1978.

La Voie, A. L. Creativity. In Activities Handbook, Washington: APA, 1981.

Osborne, A. R. Applied imagination. N. Y.: Scribner's Sons, 1963.

Parnes, S. Creative behavior guidebook. N. Y.: Scribner's Sons, 1967.

Torrance, E. P. Guiding creative talent. Englewood Cliffs, N. J.: Prentice-Hall, 1962.

Torrance, E. P. Torrance tests of creative thinking. Ill.: Scholastic Testing Service, Inc., 1972.